

Serial No.: 10/541,778
Art Unit: 2621

Docket PU030011
Customer No. 24498

Remarks/Arguments

Applicants have reviewed and carefully considered the Office Action mailed January 4, 2010.

Applicants have amended claims 1, and 5 -8 have been amended for clarification purposes only. Further, applicants have added new dependent claims 13-15. Support for these new claims can be found in the specification as originally filed. No new matter has been added. Claims 1-15 now appear in this application.

Applicants request reconsideration of the above-identified application, as herein amended in view of the following remarks.

35 U.S.C. §101 Rejection of Claims 1 and 6

Claims 1 and 6 stand rejected under 35 USC §101 as not falling within of the four statutory categories of invention. In response to this rejection, applicants have amended the preambles of claims 1 and 6 to recite "In a decoder". This amendment to claims 1 and 6 make clear that the method steps recited in those claims undergo execution by a decoder, which is a particular apparatus. As now amended, claims 1 and 6 now satisfy the "machine" prong of the "machine or transformation" test for patentability set forth in *Bilski*. Applicants request reconsideration and withdrawal of the rejection.

35 U.S.C. § 103(a) Rejection of Claims 1-4

Claims 1-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Horowitz et al. USP 7,239,662 (hereinafter Horowitz) in view of Wiegand et al, Draft ISO/IEC 14496-10:2002 (hereinafter Wiegand) Applicants believe the Examiner intended this rejection to be direct at claims 1-3 applicants will address the rejection accordingly.

In rejecting applicants' claims for obviousness, the Examiner states :

Howoritz does not explicitly disclose to the intra prediction modes. However, Wiegand teaches that with the coding standard of H.264 there are two types

Serial No.: 10/541,778
Art Unit: 2621

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of intra coding prediction (see. 9.3.1 Intra 4x4 prediction process for luma samples, 9.3.2.4 Specification of Intra-I 6x1 6-Plane prediction mode). Thus taking the teachings of Horowitz, where it is disclosed to determine the missing XXX and to encode as intra, with Wiegand's explicit teachings of the intra prediction, it is clear to the Examiner that Horowitz modified by Wiegand teaches to interpolate the lost macroblock data using neighboring macroblocks that are intra coded in either by 4x4 or 16x1 6, which reads upon the claimed limitation.)"

Applicants respectfully disagree with the Examiner's interpretation and application of Wiegand to Horowitz. Horowitz, at Col. 9, lines 43-51, states:

"Similarly, to reconstruct data for an 8x8 upper right hand block 750 of the lost macroblock 705, the coding engine 402 interpolates data in a first column of data 755 from an 8x8 upper left-hand block 760 of the right adjacent block 720, and data in the last row of data 765 from an 8x8 lower right-hand block 770 of the upper adjacent macroblock 715."

Horowitz makes use of the column of data 755 to interpolate block 750. However, as known by those of skill in the art, and particularly, those knowledgeable in the H.264 coding standard as discussed in Wiegand, no intra modes exist which can use the column of data 755 to predict the lost macroblock 750 of Horowitz. As such, one of skill in the art could not combine the teachings of these two references, as suggested by the Examiner, to arrive at applicants' claimed invention which includes, *inter alia*, the following feature of claim 1:

"establishing for the block with pixel data errors at least one intra-prediction mode from neighboring blocks, and then deriving estimated pixel data in the block with pixel data errors in accordance with the at least one established intra prediction mode to correct the pixel data errors."

In addition, the examiner has not shown any consideration how the limitations of dependent claims 2-3 are considered nor suggested by the combined teachings of Horowitz with Wiegand.

Accordingly, applicants request reconsideration and withdrawal of the rejection of claims 1-4.

Serial No.; 10/541,778
Art Unit: 2621

Docket PU030011
Customer No. 24498

35 U.S.C. § 103(a) Rejection of Claims 4-12

Claims 4-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Horowitz et al. USP 7,239,662 in view of Wiegand et al, Draft ISO/IEC 14496-10:2002 (E) in view of Chien et al. (USP 5,621,467).

With respect to independent claim 6, the Examiner has applied the same reasoning as the rejection in claim 1 and has further admitted that the combined teachings of Horowitz with Wiegand fail to disclose or suggest the application of at least one interpolation filter corresponding to the at least one derived intra-prediction mode.

As discussed above with respect to independent claim 1, the combined teachings of Horowitz with Wiegand clearly fail, to disclose or suggest the feature of "deriving at least one intra-prediction mode for the block with pixel data errors from neighboring blocks, the mode specified by the ISO/ITU H.264 standard". In view of this fact alone, applicants respectfully request that the rejection of independent claim 6 be withdrawn and the claim be allowed in its current form.

Notwithstanding the foregoing, the Examiner has further admitted that the combined teachings of Horowitz with Wiegand fail to disclose or suggest the application of at least one interpolation filter corresponding the at least one derived intra prediction mode to estimate the pixel data in the block with pixel data errors to correct the pixel data errors in the block. In an effort to reject the present invention, the examiner has cited the disclosure at Col. 10, lines 47-56 of Chien to show this feature of applicants' claimed invention.

Putting aside the fact that the combined teachings of Horowitz and Wiegand fail to render the above-identified aspects of the invention unpatentable, Applicants respectfully disagree with the Examiner's interpretation of Chien in this respect. Chien, at Col. 10, lines 47-56 discusses the use of a low pass filter as part of the selection process in the selector 926 and may be made dependent upon the value of a correlation measure. A discussion relating to the correlation measure appears at Col. 9, lines 31-60 of Chien. In reviewing this disclosure, applicants' find nothing that remotely suggests applying an interpolation filter based on a derived intra-prediction mode, as set forth in applicants' claims.

Serial No.: 10/541,778
Art Unit: 2621

Docket PU030011
Customer No. 24498

Thus, in view of the failed combination of Horowitz and Wiegand, the citation of Chien clearly fails to disclose or suggest the claimed features of the invention as set forth in independent claim 6.

With respect to dependent claims 4 and 7, the Examiner has cited intra-prediction modes of Wiegand and the fact that Chien shows the use of data surrounding block B as a basis for rejecting these claims. However, notwithstanding the above discussion with respect to the failure of the Wiegand's teachings in view of Horowitz, a review of the cited teaching of Chien clearly fails to disclose or suggest the concept of "limiting" the intra-prediction mode information to a rectangular array of blocks centered about the block having pixel data errors. Assuming, *arguendo*, the modification of Horowitz with the combined teachings of Wiegand (which as described above would be impossible to one of skill in the art) and Chien as proposed, there still remains no suggestion of applicants' claimed feature of limiting the intra-prediction to information within a rectangular array of blocks centered about the block with pixel data errors. Accordingly, applicants request reconsideration and withdrawal of the rejection.

Conclusion

In view of the foregoing, applicants solicit entry of this amendment and allowance of the claims. If the Examiner cannot take such action, the Examiner should contact the applicant's attorney at (609) 734-6820 to arrange a mutually convenient date and time for a telephonic interview.

Serial No.: 10/541,778
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No fees are believed due with regard to this Amendment. Please charge any fee or credit any overpayment to Deposit Account No. 07-0832.

Respectfully submitted,

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March 29, 2010

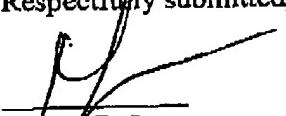
Serial No.: 10/541,778
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